Meterman®

Test Tools
Product Catalog 2005/2006

Our warranty

Our commitment to high-quality products and customer service is demonstrated by our industry exclusive one-year "No Hassle" warranty. In the unlikely event that a Meterman test tool requires warranty service, any of our local dealers are authorized to replace it, on the spot.

No waiting.

No shipping charges.

No problem.

No hassle!

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UL and EC ratings

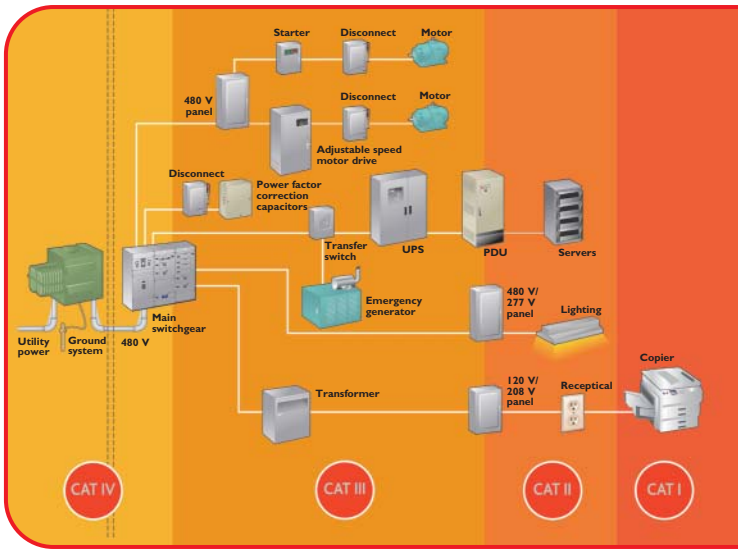
UL and EN61010-1 and voltage ratings

EN61010-1 category and voltage ratings on multimeter products

	UL	U-CSA-C	CAT I	CAT II	CAT III	CAT IV
Multimeters						
30XR	Yes	cULus		600 V	300 V	
33XR	Yes	cULus		1000 V	600 V	
34XR	Yes	cULus		1000 V	600 V	
37XR	Yes	Yes		1000 V	600 V	
38XR	Yes	Yes			1000 V	600 V
5XP		Yes	1000 V	600 V	300 V	
15XP		Yes	1000 V	600 V	300 V	
35XP		Yes	1000 V	600 V	300 V	
AM8				300 V		
DM7				600 V		
DM73B	Yes			600 V	300 V	
DM78A	Yes		600 V	300 V		
DM9				600 V		
HD110B					1000 V	
HD115B					1000 V	
HD160B					1000 V	
PM51		cULus		600 V	300 V	
PM53		cULus		450 V	300 V	
PM55		cULus		600 V	300 V	
Electrical						
ECB50	Yes				150 V	
EPM3		Yes			600 V	
Clamp Meters						
AC40A					600 V	
AC65				600 V	300 V	
AC68	Yes	Yes			600 V	
AC71		Yes		1000 V	600 V	
AC75				1000 V	600 V	
AD105					1000 V	
AD40A					600 V	
Current Clamps						
CT231A					600 V	
CT235					300 V	
CT237					300 V	
CT238					300 V	
Bench Top Meter						
BDM40-U					1000 V	

All of the products shown in this catalog are CE marked and for sale in the EC except: DM2, TP probes, HD110, HD110T, TL246B.

CE



International Safety Standards for Digital Multimeters

Test equipment must be designed to protect people who work in the high-voltage, high-current environment. In order to prevent injury the International Electrotechnical Commission (IEC) develops international general standards for safety of electrical equipment for measurement, control and laboratory use. The most current standard 61010 specifies overvoltage categories for electrical distribution systems. The Category rating increases based on the closeness to the power source and a higher level of user protection is required from test equipment.

Proposed Energy Regions*

CAT I
Electronics, signal level

CAT II
Appliances, portable tools, single-phase receptacle loads

CAT III
Three-phase distribution, large building lighting systems, distribution panel devices

CAT IV
Three-phase at utility connection, electricity meters, outside and service entrance.

Meterman® Test Tools recommends only using test equipment in environments below or up to its Category rating, never in a Category above the instrument's rating.

**Category Ratings per EN61010. Category boundaries may not be exact.*

Quality and service beyond compare

Our products

The products shown in this catalog include an extensive selection of portable multimeters, clamp meters, component checkers, bench meters, HVAC testers and specialty tools such as logic probes and short-finders to meet any application. Also shown is a complete selection of accessories including protective cases, test leads and adapters.

Our distributors

The products shown in this catalog are sold and supported by a worldwide network of Meterman distributors and dealers. Should you require any assistance or have questions about our products or their applications, these local dealers stand ready to serve you.

XP series Digital Multimeters

A line of compact full-featured digital multimeters, the XP Series provide superior features and accuracy in a small form factor. The XP Series has unique features such as VolTect™ non-contact voltage detection, temperature, CAT III safety ratings and a Magne-Grip™ holster. There are three models:

- *35 XP – 4000-count auto ranging*
- *15 XP – 2000-count auto ranging*
- *5 XP – 2000-count manual ranging*

Product includes:

35XP

A compact, full-featured digital multimeter for plant maintenance, HVAC, electrical and electronics applications.

The 35XP is the right choice for HVAC, plant maintenance technicians and residential electricians.

- Autoranging for fast measurements.
- 4000-count resolution, 0.5% basic accuracy
- 750 V ac/1000 V dc
- 2A ac/dc, 0.1µA resolution for flame sensor testing
- Frequency to 40 MHz
- Resistance to 40 MΩ
- Temperature to 1000 °C with a type K thermocouple included
- Capacitance to 4000 µF for motor run/start test
- Continuity beeper
- Data Hold
- Diode Test
- VolTect™
- Magne-Grip™ Holster
- Auto Power off
- Overload protection / input warning
- One year “no hassle” warranty

VolTect™
Non-Contact
Voltage Detector

VolTect™ non-contact voltage detection lets you instantly detect dangerous ac line voltages

Magne-Grip™ Holster with magnetic hanging strap frees both hands for work and Integrated tilt stand for easy bench use.

Triple safety rating

Protects against line surges and over-voltage conditions. Available on all XP Series meters

CAT I 1000 V

CAT II 600 V

CAT III 300 V

15XP

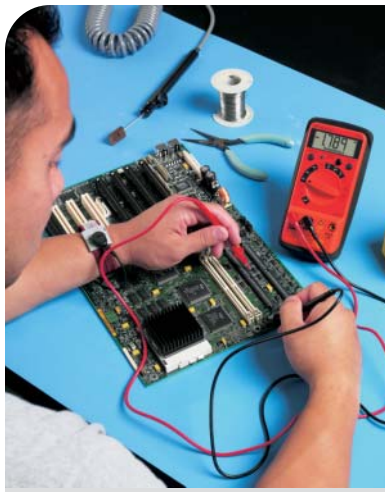
A compact digital multimeter for electronics and field service applications

The 15XP is the right choice for electronics engineers, technicians and field service.

- Autoranging for faster measurements.
- 2000-count resolution, 0.5% basic accuracy
- 750 V ac/1000 V dc
- 2A AC/DC Current
- Resistance to 20 MΩ
- TTL logic test to 20 MHz
- Continuity beeper
- Diode test
- Data Hold
- VolTect™
- Magne-Grip™ Holster
- Auto Power off
- Overload protection / input warning
- One year “no hassle” warranty

15XP

VolTect™ Non-Contact Voltage Detector



Product includes:

5XP

A compact full-purpose multimeter

The 5XP is the right choice for residential, commercial and general troubleshooting applications.

- 2000 Count, 1% basic accuracy
- 27 ranges/10 functions
- 750 V ac/ 1000 V dc
- 200 mA AC/DC Current
- Resistance to 20 MΩ
- Continuity beeper
- Diode Test
- Battery test (1.5 and 9 Volt) with load
- Min/Max records minimum and maximum values
- VolTect™
- Magne-Grip™ holster
- Data Hold
- Overload protection / input warning
- One year “no hassle” warranty

5XP

VolTect™ Non-Contact Voltage Detector

Product includes:

Pick the multimeter that is right for you.

	5XP	15XP	35XP
Display	2000-count display 3 1/2 digits	2000-count display 3 1/2 digits	4000-count display 3 3/4 digits
Ranging	Manual range hold	Auto range with manual range hold	Auto range with manual range
Basic Accuracy	1%	0.5%	0.5%
AC/DC Volts	750V / 1000V	750V / 1000V	750V / 1000V
AC/DC Current	200 mA AC/DC	2A AC/DC	2A AC/DC
Resistance	20 MΩ	20 MΩ	40 MΩ
Special Features	Battery test Min/Max recording	TTL logic test Auto Power Off Capacitance to 4,000 µF Auto Power Off	Temperature to 1000 °C Frequency to 40 MHz
Common features	Continuity beeper, Diode Test, Overload protection, Input warning, Data Hold, Voltect™, Magne Grip Holster™, One year "no hassle" warranty		

XR Series Portable Multimeters

38XR
True RMS digital multimeter with optical PC interface

For Engineers designing and troubleshooting industrial automation and control systems, the 38XR delivers the highest safety rating available – CAT IV 600 V and CAT III 1000 V. The features include temperature, capacitance, frequency, 4-20mA loop current percentage, backlight and PC interface. With the addition of 38SW software and RS232 cable, the 38XR can be used for real-time data acquisition using any industry standard Windows® PC.

- **10,000-count with high 0.25 % accuracy**
- **Bright blue backlight for dim environments**
- **Duty cycle, capacitance and frequency**
- **Magne-Grip™ Holster with magnetic hanging strap frees both hands for work**
- **4-20 mA loop current with % readout**
- **Temperature to 1300 °C type K thermocouple included**
- **True RMS AC + DC coupled for accurate ripple measurements**

Includes heavy-duty test leads, threaded alligator clips, temperature adapter, type K thermocouple, manual, spare fuse and 9 V battery

Three-year warranty

Magne-Grip™ Holster with magnetic hanging strap

We designed the Magne-Grip™ holster to protect the meter and provide the "third hand" DMM users need. An innovative magnetic hanging strap secures the meter to a convenient steel surface, freeing both hands for work.

Optional RS232 cable and software, 38-SW

- Real-time data acquisition software logs and displays data from all 38XR measurement functions
- Stores data for retrieval or for further analysis
- Exports data for use in Excel® or other programs
- Supports Windows® 98, NT, XP and their variants

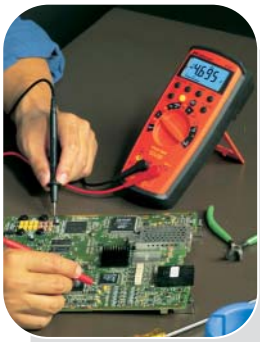
37XR

True RMS with component and logic test

For electronics, the 37XR is a high-resolution, True RMS meter for troubleshooting electronic circuits at the bench or on the job site. The 37XR features component and logic test, peak hold and dBm.

- Autoranging 10,000 count with 0.1% accuracy
- LCR component test functions – inductance, capacitance and resistance
- Bright blue backlight for dim work environments
- CAT II 1000 V, CAT III 600 V
- Magne-Grip™ Holster with magnetic hanging strap
- Min/Max, Avg, Rel and Data Hold

Three year "no hassle" warranty



34XR

True RMS with temperature and backlight

For field service technicians, the 34XR provides a True RMS, autoranging meter for trouble-shooting difficult problems. 34XR features temperature, capacitance and frequency.

- True RMS for accurate voltage measurements
- 4000 µF capacitance range for motor start testing
- Bright blue backlight
- Duty cycle, frequency and capacitance
- Temperature with a type K thermocouple to 1000 °C
- Magne-Grip™ Holster with magnetic hanging strap
- Data Hold, Min/Max and bar graph
- CAT II 1000 V, CAT III 600 V

Three year "no hassle" warranty

33XR

Manual ranging with temperature and capacitance

For field service technicians, the 33XR has the measurement functions needed for maintenance, repair and installation.

- Temperature, frequency and capacitance for complete measurement capability
- Extended 4000 µF capacitance range for motor start testing
- Magne-Grip™ Holster with magnetic hanging strap frees both hands for work
- Data Hold, Peak Hold, Min/Max and REL
- CAT II 1000 V, CAT III 600 V

One year "no hassle" warranty

30XR

Manual ranging with VolTect™ non-contact voltage tester

Basic functions for automotive, residential, and education applications.

The 30XR is a manual ranging digital multimeter with non-contact voltage detector and battery test.

- Innovative, non-contact voltage detector safely indicates the presence of dangerous live voltage
- Magne-Grip™ Holster with magnetic hanging strap frees both hands for work
- Safety rated at CAT II 600 V, CAT III 300 V
- 9 ranges, 30 functions and handles most measurement needs
- Battery/fuse door designed for easy accessibility

One year "no hassle" warranty

VolTect™ Non-Contact Voltage Detector

Bright blue backlight for dim work areas

See the comparison chart on page 8 to pick the meter that is right for your job.

XR Series Comparison Chart

Pick the new XR Series Meter that is right for you.

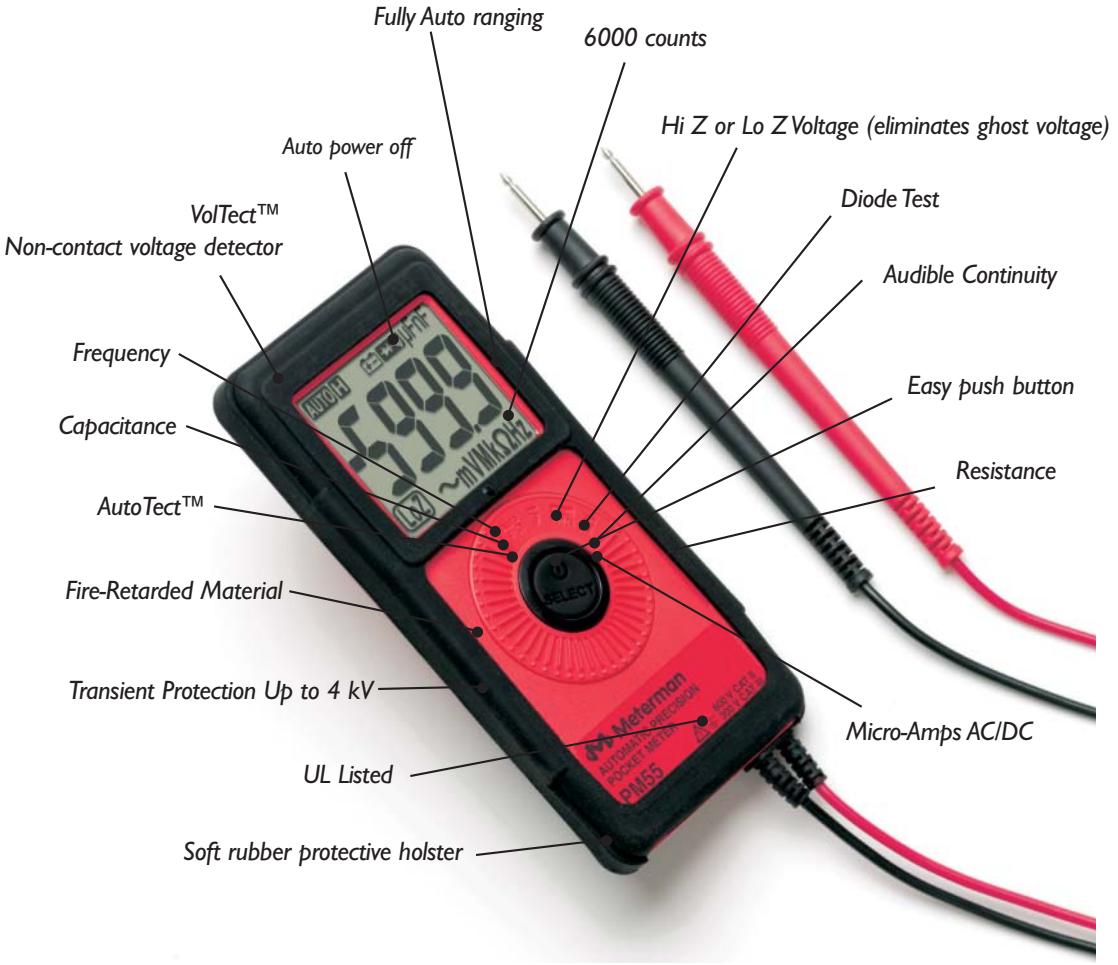
Description	30XR Multimeter with Non-Contact Voltage Detector	33XR Field Service Multimeter, Manual Ranging	34XR Field Service Multimeter, True RMS	37XR Precision True RMS Multimeter Electronics	38XR True RMS Industrial Multimeter
Measurement					
Voltage DC	600 V	1000 V	1000 V	1000 V	1000 V
Voltage AC	600 V Average	750 V Average	750 TRMS AC	750 TRMS AC	750 TRMS AC + DC
mV DC	•	•	•	•	•
mV AC	Average	Average	TRMS	TRMS	TRMS AC + DC
Basic DC Accuracy	1.0 %	0.7 %	0.5 %	0.1 %	0.25 %
DC Current Fused	10 A	10 A	10 A	10 A	10 A
AC Current Fused	10 A	10 A	10A TRMS	10A TRMS	10A TRMS AC + DC
Resistance	20 MΩ	4 MΩ	40 MΩ	40 MΩ	40 MΩ
Test Beeper	•	•	•	•	•
Diode	•	•	•	•	•
Capacitance		4000 µF	4000 µF	400 µF	400 µF
Frequency		40 MHz	40 MHz	10 MHz	10 MHz
Temperature		1000 °C	1000 °C		1300 °C
Logic Test				TTL/CMOS 20MHz	
Inductance				40 H	
Duty Cycle			•	•	•
Non-Contact Voltage Detect	•				
Battery Test	1.5 V, 9 V				
Features					
Counts	2,000	4,000	4,000	10,000	10,000
Auto Range with Range Lock	Manual	Manual	•	•	•
Auto Power Off		•	•	•	•
Analog Bar Graph		•	•	•	•
BackLight			•	•	•
Min/Max	•	•	•	•	•
Average				•	•
Relative		•		•	•
Data Hold	•	•	•	•	•
Peak Hold		•		•	•
4-20 mA %					•
Optical RS-232					•
dBm				•	•
Low Battery Indicator	•	•	•	•	•
Battery and Fuse Door	•	•	•	•	•
Warranty	1 Year	1 Year	3 Years	3 Years	3 Years
Agency Approvals					
IEC 1010 CAT II	600 V	1000 V	1000 V	1000 V	
IEC 1010 CAT III	300 V	600 V	600 V	600 V	1000 V
IEC 1010 CAT IV					600 V
UL, C UL US (or CSA)	•	•	•	•	•
Package Contents					
Magne-Grip™ Holster	•	•	•	•	•
Thermocouple + Temp Adapter		•	•		•
Test Leads	TL36	TL36	TL36	TL36	TL36
Threaded Alligator Clips		•	•	•	•
Software and Interface Cable					Optional
Battery (9V installed)	•	•	•	•	•

PM 50 Series Pocket Multimeters

PM 50 Series

The world's smallest full-featured CAT III multimeters

New!



Three NEW multimeters with innovative features in an ultra-compact size.

- Simple interface with easy one-touch button control, large display.
- Progressive design with two remarkable features:
  - VolTect™ is a built-in non-contact ac voltage detector.
  - AutoTect™ is a function that automatically selects between ac volts, dc volts or resistance.
- Compact size offers a meter that is less than 1 cm thick and weighs less than 90 g
- Safety standards: Meets CAT III safety standards, UL certified
- HiZ or LowZ: Choice of input impedance to eliminate Ghost voltages

VolTect™ Non-Contact Voltage Detector

Pick the multimeter that is right for you.

	PM51	PM53	PM55
Fully Autoranging	Yes	Yes	Yes
Large LCD display w/icons	4000 count	6000 count	6000 count
Basic Accuracy	1 %	0.50 %	0.50 %
AC/DC Voltage	600 V	450 V	600 VΩ
AutoTect Ohms	–	6 MΩ	6 MΩ
Non-AutoTect Ohms	40 MΩ	–	600 Ω
Continuity with Beeper	Yes	Yes	Yes
Diode Test	Yes	No	No
Capacitance	3000 µF	100 µF	2000 µF
Frequency	1 MHz	10 kHz	30 kHz
µAmps AC/DC - Current	–	–	2000 µA
AutoTect™	–	Yes	Yes
Voltect™	–	Yes	Yes
Safety Ratings	CAT II 600 V CAT III 300 V	CAT II 450 V CAT III 300 V	CAT II 600 V CAT III 300 V
Safety Approvals	cULus, CE	cULus, CE	cULus, CE
Warranty	One-year	One-year	One-year

HD Series

The HD Series of DMMs is designed for professional use in harsh environments.
The meters are very rugged and reliable in heavy use applications. Each meter is made using waterproof construction to prevent dirt, grime and moisture from entering the case and causing inaccurate readings or damaging shorts. They are built of tough, fire-retardant thermoplastic resistant to grease and chemical spills, with all sensitive components shock-mounted for a drop resistant to at least 2,5 metres. Every meter in the HD line has an extended voltage measurement capability of 1500 V DC and 1000 V AC.
The extended voltage ranges can withstand transients up to 6 kV.

General Purpose Multimeters

The Meterman line of general purpose multimeters is the perfect choice for light residential, commercial, or automotive use. The DM7 and DM9 combine an impressive array of features with high levels of user safety, and come with more features than you might expect. Now everyone can afford Meterman quality.

HD Series Heavy-Duty DMMs

HD110B
Rugged DMMs with IP67 water proofing for harsh environments
- MIL-PRF 28800F rated
- Drop-proof special housing and PCB mounting
- Extra fusing and protection from accidental overloads
- Oversized, shock mounted LCD display
- Auto-power off
- Unique live voltage Safety Tester

HD115B
All the features of the HD110B plus:
- Digi-Glo™ backlight
- Capacitance

HD160B
Harsh-duty autoranging meter with True RMS ac
- 10,000-count with bar graph
- Special sealing for environment and water proofing. IP67 and MIL-SPF-28800F rated
- Drop-proof special housing and PCB mounting
- Extra fusing and protection from accidental overloads
- Unique live voltage Safety Tester
- Exclusive, best Digi-Glo™ backlight
- Menu selectable auto max, min, rel, probe hold modes

Pick the heavy-duty meter that is right for you.

	HD110B	HD115B	HD160B
Volts	1500 V DC/1000 AC	1500 V DC/1000 AC	1500 V DC/1000 AC
Ranging	Manual	Manual	Auto
Basic Accuracy	0.1%	0.1%	0.1%
AC Conversion	Average	Average	True RMS
AC/DC Current	10 A, Fused	10 A, Fused	10 A, Fused
Resistance	20 MΩ	20 MΩ	40 MΩ
Capacitance	-	20 mF	-
Diode/ Continuity	Yes	Yes	Yes
Display	2,000-count	2,000-count	10,000-count
Extra Features	IP67, Data Hold, holster	IP67, Probe Hold Peak Hold Min/Max Digi-Glo™ backlight, holster	IP67, Probe Hold Range Lock Min/Max Digi-Glo™ backlight Rel Mode analog bar graph, holster

General Purpose Multimeters

DM7
Compact digital multimeter with attached test leads for the home, school or workshop
- 6 functions/14 ranges
- Special ranges to test household batteries
- 2000-count
- Holster included

DM7

DM9

DM9
Compact autoranging meter with battery test function for home office or workshop
- High resolution, 4000-count autoranger
- 8 functions/19 ranges
- Continuity beeper
- Special ranges to test household batteries with good/not good LED
- Holster included

Specialty Multimeters

DM78A

Voltage, continuity, diode and resistance measurements in a credit card size

- 5 functions/16 ranges
- Auto-off saves batteries
- Data hold
- Protective case included
- 3200-count display with analog bar graph

AM8

Compact analog multimeter for the home, car or workshop

- High sensitivity taut band movement
- 5 functions/15 ranges
- Smallest size
- Special ranges to test household batteries
- Ohms zero adjust
- Holster included

DM73B

Meter with built in test probe for one-hand operation.

- Unique pen shape autoranger
- Small and light, goes anywhere
- Allows one-hand operation in tight spots
- 3400-count display with analog bar graph
- Data hold and auto-off
- Two probe tip lengths: 1.25 cm and extra sharp 7.5 cm

TP73B

- Replacement probe tips for DM73B meter
- Two probe tips: 1.25 cm and extra sharp 7.5 cm

Pick the multimeter that is right for you.

	AM8	DM7	DM9	DM78A	DM73B
Style	Analog	Digital with manual range	Digital with auto range	Digital with auto range	Digital with auto range
Case	Pocket size	Pocket size	Pocket size	Credit card size	Pen probe style
Volts	500 V AC/DC	600 V AC/DC	600 V AC/DC	450 V AC/DC	600 V AC/DC
Current	250 mA DC	200 mA DC	400 mA AC/DC	-	-
Resistance	2 MΩ	2 MΩ	40 MΩ	32 MΩ	34 MΩ
Battery Test	1.5 V, 9 V	1.5 V, 9 V	1.5 V, 9 V	-	-
Diode Test	-	Yes	Yes	Yes	Yes
Continuity Beeper	-	-	Yes	Yes	Yes
Special Features				Analog bar graph, Auto Power Off, Data Hold	Analog bar graph, Auto Power Off, Data Hold
Safety Ratings	Cat II 300 V	CAT II 600 V	CAT II 600 V	CAT II 300 V CAT II 600 V	CAT III 300 V

Clamp Meters and Amp Clamps

Clamp meters

Clamp meters are invaluable tools for electrical engineers and electrical contractors. Their non-intrusive measurement capability allows safe, rapid diagnosis of fault conditions on live electrical circuits without disrupting service. The Meterman line includes highly portable and accurate mini-clamps for residential or commercial use up to 400 A as well as full-size clamps with True RMS capability for industrial use up to 1000 A.

AC71

Automatic AC clamp multimeter with backlight

- Large display with fully automatic bright blue backlight
- AutoTect. Automatic function selector for Vac, Vdc and Ω
- Resistance, Continuity, Data Hold
- Simple one button control
- AC current to 600 A
- AC/DC volts to 750 V/1000 V
- CAT II 1000 V, CAT III 600 V safety rated
- Resistance, Continuity, Data Hold

New!

AutoTect™

AC71

AD40A

Compact clamp multimeter measures up to 400 A AC in tight spaces. Measures low AC current in 40 A range.

- Autoranging
- 10 mA resolution in 40 A range
- 4000-count display with bargraph
- Data hold and auto-off
- CAT III 600 V rated

AC40A

All features of the AD40A plus

- Resistance and Continuity
- 600 V AC and DC range

AC40A

AD40A

AC65

Rugged True RMS AC clamp multimeter measures non linear load current

- True RMS
- Professional's 600 A, AC-DMM
- Voltage to 600 V AC, autoranging
- Resistance and continuity
- Data hold
- 4000-count
- Carrying case included
- CAT II 600 V, CAT III 300 V rated

AC65

AC68

Extended DMM features such as frequency combine with an AC/DC current measurement for our most versatile clamp meter

- True RMS
- Top-of-the-line professional clamp DMM
- AC and DC current to 600 A
- AC and DC voltage to 600 V
- Resistance and continuity
- Data and AC peak hold
- Carrying case included
- CAT III 600 V rated

AC68

AC75

AC clamp multimeter for electrical and HVAC applications measures up to 600 A Ac

- Three tools in one: clamp meter, multimeter, thermometer
- Measures up to 600 A Ac
- Low DC µAmps for flame rod detector testing
- 750 V ac/1000 V dc
- Digital thermometer 400 °C with a type K probe included
- Resistance up to 40 MΩ
- Capacitance to 4000 µF for motor run/start testing
- Continuity beeper
- 4000-count large digit display
- Auto power off
- Low battery indicator
- Full overload protection
- CAT II 1000 V, CAT III 600 V safety rated

AC75

AD105

Our best True RMS clamp delivers the widest range of current measurement with ability to measure non-linear loads to 1000 Amps

- Broad range 1000 A, AC and DC ammeter
- 4000-count true RMS, autoranging
- Peak hold and DC auto zero
- Frequency
- Belt-clip sleeve case included
- CAT III 1000 V rated

AD105

Current Clamps for DMM's

	Current Range	Output	Conductor Max
CT231A	200 A AC	mA	2 cm
CT235	1000 A AC/DC	mV	3 cm
CT237	200 A AC/DC	mV	1.9 cm
CT238	20 A AC/DC	mV	1.9 cm

Pick the clamp meter that is right for you.

	AD40A	AC40A	AC65	AC68	AC71	AC75	AD105
AC Current	40/400 A	40/400 A	400/600 A	400/600 A	60/400/600 A	400/600 A	400/1000 A
DC Current	–	–	–	400/600 A	–	400/4000 µA	400/1000 A
True RMS	–	–	Yes	Yes	–	–	Yes
AC Voltage	–	600 V	600 V	600 V	750 V	750 V	–
DC Voltage	–	600 V	–	600V	1000V	1000 V	–
Resistance	–	400 Ω	40 kΩ	40 kΩ	2000 kΩ	40 MΩ	–
Frequency	–	–	–	20 kHz	–	–	10 kHz
Continuity	–	Yes	Yes	Yes	Yes	Yes	–
Jaw Size	2.54 cm	2.54 cm	4.06 cm	4.06 cm	3.3 cm	3.3 cm	5.08 cm
Carry Case	Included	Included	Included	Included	Included	Included	Included
Warranty	One-year	One-year	One-year	One-year	One-year	One-year	One-year

When your applications are best suited to bench-top style meters, look to Meterman for solutions. For depot service, design engineers, production or QC benches, school labs and more, Meterman offers three different low-cost/high-feature test instruments. All are housed in an attractive custom case with a cushion grip, non-skid, tilt-stand handle, rear power cord wrap, and grooved channels to allow stacking.

Bench-Top Instruments

FG2C-U

- 3 MHz function generator
- High feature and low cost
- Easy push-button selection for power, range and waveform
- Square, triangle, sine wave and TTL/CMOS outputs
- Duty cycle and DC offset control VCF input
- Includes test cables and spare fuses

FG3C-U

- 3 MHz sweep/function generator
- Built-in, 6-digit display 150 MHz frequency counter
- Best value combination generator
- Square, triangle, sine wave and TTL/CMOS outputs
- Amplitude or frequency modulation
- Linear and logarithmic sweep modes
- Duty cycle, VCF and DC offset control
- Includes test cables and spare fuses

BDM40-U

- True RMS, 4-1/2 digit and 20,000-count multimeter
- AC or AC + DC input coupling
- High accuracy, basic V dc 0.03 %
- Voltage to 1200 V DC, 1000 V ac
- Current from 10 nA to 20 A
- Resistance from 10 MΩ to 20 M
- Interlocking push-button control for easy selection
- CAT II 600 V rated

Pick the bench-top instrument that is right for you.

	FG3C	FG2C
Frequency Ranges	7 Ranges, 0.3 to 3 MHz	7 Ranges, 0.3 to 3 MHz
Output Amplitude	20Vp-p open circuit	20Vp-p open circuit
Sine Wave distortion	≤1 %, 0.3 to 200 kHz	≤1 %, 0.3 to 200 kHz
AM - Depth	0-100 %	-
AM - Mod. Frequency	400 Hz (int), DC to 1 MHz ext	-
Carrier Bandwidth	100 Hz to 3 M Hz (-3dB)	-
FM - Deviation	0 to +/- 5 %	-
FM - Mod. Frequency	400 Hz (int) DC to 20 kHz (ext)	-
Display	6 digit, 0,76 cm high LED	Dial Control
Power Supply	115 V AC or 230 V AC, 60 or 50 Hz	115 V AC or 230 V AC, 60 or 50 Hz
Warranty	One year	One year

Handheld Component Testers

CR50

Sort, match,QC inspect,and verify components, check circuits with this full range capacitance and resistance meter

- Dual zero adjustment pots to null strays and test leads
- Special “Low Ohms” range
- Oversized, read-at-a-glance display
- Premium test leads with alligator clips

LCR55

The ultimate component checker measures inductance, capacitance, resistance, transistors, diodes and microwave diodes

- Plug-in test slots and test leads
- Oversized, read-at-a-glance display
- Data hold and max hold
- Auto-off

	CR50	LCR55
Resistance	0.01 Ω - 20 MΩ, ±1.0 %	0.01 Ω - 20 MΩ, ±0.5 %
Capacitance	0.1 pF - 20,000 µF, ±0.5 %	0.1 pF - 2000 µF, ±1.0 %
Inductance		0.1 µH - 200 H, ±5.0 %
Transistors		Hfe, Iceo (NPN, PNP)
Diodes	Yes	Std (3 V) and microwave oven (8 V)
Continuity Test	Yes	Yes

Electronic and Specialty Probes

LP10A/LP25A

- Pen-size logic probes
- Troubleshoot and analyze digital logic circuits

LP10A:Good Value for Most Common Circuits

Detects pulses > 30 ns up to 17 MHz, TTL, CMOS levels and dual LEDs indicate hi/lo state

LP25A:Better Unit Tests More

Detects Pulses > 30 ns up to 25 MHz, TTL, CMOS, DTL, RTL, NMOS, MOS Logic Dual LEDs and Tone Indicate Hi/Lo State

HV231-10

- High voltage probe
- Extended voltage measuring to 40 kV
- Use with standard multimeters with 10 MΩ input impedance

Note: HV probe for 22 MΩ input is available, HV231-22

SF10

Exclusive patented technology provides the fastest and easiest method of finding shorts and tracing circuits on PCBs

- Brush probe quickly pinpoints area of shorts and traces circuits in assembled printed circuits, multi-conductor cables, mass terminations systems, backplanes, connectors and IC sockets
- Low-test voltage protects sensitive circuitry and eliminates false continuity indications
- Many applications in depot service benches, production quality control and production engineering

Output Voltage:	0.5 V DC
Max Current:	100 µA
Continuity Threshold:	10 Ω
Brush Material: Stainless Steel	

HVAC Testers

HVAC / Environment

Technicians nowadays face an ever increasing workload with more different measurements. Modern regulations demand the checking and troubleshooting of installations for heating, ventilation, airconditioning, as well as illumination. For this purpose Meterman has a range of special tools that allow technicians to check adherence to modern standards. The Meterman TMA10 Anemometer is a perfect, easy to use anemometer that allows checking of air conducts. Our TRH-22 Relative humidity meter lets you measure relative humidity as well as temperature. Light illumination levels are easily measured with the Meterman LM631 Digital light meter.

TMA10

Anemometer with separate precision vane

- Measure air velocity (m/s) or air flow (m3/s) and temperature
- 4000 count. Resolution (velocity): 1 cm/s
- Separate vane sensor
- Surface area entered by user for air flow measurement
- Min/Max/Avg and Data Hold for air velocity, flow and temperature
- Continuous moving average for up to 2 hours
- Multi point average for air velocity and flow
- Auto power off
- Large Dual display
- RS232 interface output with optional software (TM-SW)
- Deluxe hard carrying case

Product includes:

TM-SW

Data Logging Software and RS232 Cable for TMD90 and TMA10

- Real-time software logs and displays data from all measurement functions
- Record two channels simultaneously
- T1 and T2 with TMD90
- Air Flow and Temperature with TMA10
- Store results for further analysis, data reporting or charting
- Maximum, Minimum, Average, Standard Deviation results calculated automatically

TMD90: see page 19

Environment Test

TRH22

Relative humidity and temperature meter

- Relative humidity measurement from 0 to 100 %
- Relative function monitors humidity and temperature changes
- Large dual display of RH and temperature
- Complete with carrying case, battery and wet bulb chart
- Min/Max/Data Hold
- Auto power off
- Soft Carrying case included

Product includes:

LM631

Digital Light Meter

- Measures wide range of light up to 20,000 fc or lux, front panel switchable
- Accurate, high resolution of 0.01 fc/lux
- Sensor dome has 115cm attached cord for measurement flexibility
- Built-in CIE spectrum curve for accurate human eye response
- Peak hold and data hold
- Large 3-1/2 digit display with backlight feature
- Meets CE EN61326-1 certification for safety ratings
- mV analog output for recording measurements
- Case is rugged valox plastic in ergonomic design for holding ease
- Battery hatch cover to easily replace batteries
- Shipped with carrying case, extra lens cover, four AAA batteries installed and manual

Non- Contact Thermometers – Quick and effective diagnostic tools

The Meterman IR thermometers, are ideal tools for diagnosing problems in a wide variety of applications like HVAC/R, fire safety and protection, industrial maintenance, automotive and quality control.
These fast and reliable tools are rugged, lightweight, have ergonomic design and are affordable.

Non-contact Thermometers

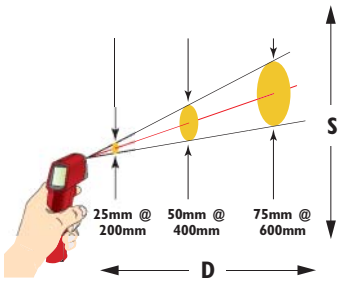
IR608

The IR608 Infrared Thermometer is for a variety of applications:

- "Pistol grip design" for comfortable grip
- Small enough to fit in your pocket
- Measuring range -18 °C to 400 °C
- Fixed emissivity at 0.95
- Laser sighting for accurate targetting(CE EN60825 certified Class II)
- Display hold (7 seconds)
- Very fast response time (500mS, 95%)
- Distance to spot size ratio 8:1
- Accuracy to 2%
- Backlit display

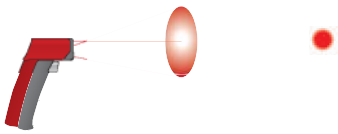
Available as of June 2005

Optical Resolution



The IR608 is intended for close range targets, measuring a minimum target area of 25 mm in diameter out to a distance of approximately 200 mm, and has a 150 mm target measurement area at 1.5 m.

Laser Lighting



Single-point laser indicates the approximate center of the target spot.

IR610

- "Classic" design with rugged Valox® plastic.
- Measuring range -20 °C to 260 °C
- Fixed emissivity at 0.95
- Laser sighting for accurate targetting(CE EN60825 certified Class II)
- Data Hold
- Low battery indicator
- Excellent distance to spot size ratio 10:1
- Large 3-1/2 digit display with backlight
- Accuracy to 3%
- Shipped with carrying case

Temperature

TMD90

Dual input digital thermometer

- Measures to 1760 °C
- Dual temperature inputs
- Resolution 0.1 °C, basic accuracy 0.1%
- Accepts type J, K, T, R, S, E thermocouples
- Triple backlight display of T1, T2, T1 – T2, and relative time stamp
- Low Battery indicator
- Min/Max measurement
- Auto Power off (Can be disabled for data logging)
- Real time data acquisition using RS232 with optional software (TM-SW)
- Deluxe hard carrying case, two Type K probes

TM-SW: see page 16

Product includes:

TM45

Ideal for HVAC/R contractor, plant maintenance, commercial building service

- Unique, mini-stick design thermometer
- Small, go-anywhere size
- Type K thermocouple compatible
- °F/°C and 1°/0.1° selectable
- Data and max hold
- Type K bead probe and carry case with belt loop included

1 °F Range: -58 to 1300; ±0.3 % ±2 °F
0.1 °F Range: -58.0 to 199.9; ±0.3 % ±2 °F
1 °C Range: -50 to 1300; ±0.3 % ±1 °C
0.1 °C Range: -50.0 to 199.9; ±0.3 % ±1 °C

TPP2-C

Surface probe pocket thermometer with flat surface contact

- Range -50 °C to 250 °C
- 0.1 °C resolution
- Easy-to-read digital display
- Data hold
- Long battery life, 200 hours typical
- Battery included, 3 V coin cell
- 90-day warranty

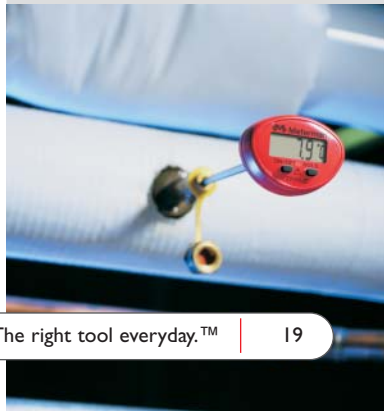
TPP1-C

Immersion probe pocket thermometers with protective cover

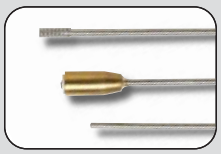
- Range -50 °C to 250 °C
- 0.1 °C resolution
- Easy-to-read digital display
- Data hold
- Long battery life, 200 hours typical
- Battery included, 3 V coin cell
- Protective probe sleeve with pocket clip
- 90-day warranty

Thermocouple Thermometers

When you need contact-thermometers, Meterman has the solution for you. From the very small & low cost TPP Pocket thermometers to the feature rich, dual input TMD90.



MH101K
Thermocouple
- Master probe handle for tips below
- Concept saves money when
  - two or more tip styles are used
  - replace only tips if damaged
- 5:1 expandable coiled extension wire

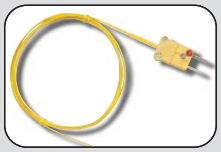


TP110K
- Immersion probe tip
- 650 °C
- Use with MH101K handle

TP120K
- Surface probe tip
- Specially designed to get true surface temperatures
- 650 °C
- Use with MH101K handle

TP130K
- Air/gas probe tip
- Specially designed with radiation sheath
- 650 °C
- Use with MH101K handle

TP254
Higher-temperature immersion
- Attached handle
- 1100 °C



TP255
Low-cost,general purpose bead probe
- 200 °C

Temperature

TC253A
Adds thermometer function to DMM
- °C/°F switchable
- Uses type K thermocouple sensor
- Includes TP255 bead probe

Range: -50 °C to 1000 °C
Output: 1 mV/°

Electrical Testers

ST101
Socket Tester
- Fast and easy socket test
- Easy-to-read light indicators
- Confirm proper wiring and operation of AC socket
- For use on 110-125 V AC

Only for sale in selected countries

ST102
GFCI Socket Tester
- Test GFCI breakers for proper wiring and operation
- Easy to read light indicators show common wiring problems
- GFCI circuit trips to confirm tester is working
- For use on 110-125 V AC

Only for sale in selected countries

VT102
Voltage Tester
- 4 bright neon lights indicate AC voltage
- 4 ranges indicated from 110 V to 460 V AC
- No battery needed
- Tests 2 wire and 3 wire AC outlets

Not for sale in Europe, Africa and Middle East

VT101
Voltage Tester
- Bright neon light indicates AC voltage
- Identify AC voltage from 90-500 V AC
- No battery needed
- Tests 2 wire and 3 wire AC outlets

Not for sale in Europe, Africa and Middle East

Electrical Testers

EPM3

Phase Sequence and Motor Rotation Tester

Compact three function tester

- Identify proper phase sequencing of live three phase line voltages
- Determine three phase motor rotation direction (unpowered)
- Check for open phase status
- Bright LED illuminators to clearly indicate test results
- Includes three color coded test leads with large alligator clips
- Convenient carrying case for portability and storage
- IEC1010, EN61557-7, TUV, CCSAUS, CAT III 600 V rated
- Highest safety rated tester available

New!

VT201

Non-Contact Voltage Detector

- Quickly check for the presence of AC voltages, with no electrical contact
- Safe non-contact detection of voltages from 70 V to 440 V AC
- Both visible and audible indicators
- Detector emits loud audible chirping
- Bright flashing LED
- Batteries included

ECB50

Circuit Breaker Finder

Three testers in one:

- identify circuit breaker to an electrical socket
- trace ac cables in walls
- sort wires in a bundle

- Microprocessor controlled
- Coded transmission allows easy separation of transmitter signal
- Audible and visual indicators
- Low battery indicator
- Cable tracing depth up to 40 cm
- CAT III 300 V rated

Two versions:

- ECB50E: UK version
- ECB50FGIS: Euro connector version

Test Leads and Cases

TL244A
- 120 cm heavy duty test lead wire with Ever-sharp probe tips that accept screw-on alligator clips (AL244)
- Shrouded 90° banana plugs

TL244A

AL244
- Screw-on alligator clips
- For use with TL244

AL244

TL245
- 90 cm PVC insulated lead wires
- Shrouded 90° banana plugs

TL245

TL246B
- 120 cm silicone insulated lead wires with 1,27cm jaw, heavy duty alligator clips
- Shrouded 90° banana plugs

TL246B

TL35A
- 102 cm PVC insulated lead wires with probe tips threaded to accept the detachable, included alligator clips
- CE approved alligator clips, 1,6 cm jaw
- Shrouded 90° banana plugs

TL35A

TL36
- 102 cm PVC insulated lead wires with probe tips threaded to accept the detachable, included alligator clips
- CE approved alligator clips, 1 cm jaw
- Shrouded 90° banana plugs

TL36

TL73B
- 102 cm PVC insulated wire with shrouded 90° banana plug
- CE approved alligator clip, 1 cm jaw

TL73B

DL243C

DL248C

DL243C-Test Lead Kit
- Silicon lead wires, 120 cm long, red and black
- Standard probe tips, red and black
- Alligator clips, red and black
- Spade lugs, red and black
- Carry case with pockets and velcro closure
- EN61010-2-031 CE Safety Approved

DL248C-Deluxe Test Lead Kit
All the features of the DL43C plus:
- Spring loaded crimp tips, red and black
- Red tip length extender

DC205B

DC207B

DC205B/DC207B
- Leather grained case
- Impact resistant for tough environments
- Allows use of meter while still in case

VC11

DC207B
All the features of the DC205B plus extra compartment to store current clamp

VC11
- Padded vinyl carrying case
- Velcro closure
- Designed for DM73B and leads

VC30

VC20,VC30,VC221A
- Padded vinyl carrying case
- See Accessory Guide for Meters

Accessories Guide

		XR Series	HD Series	XP Series	PM Series	DM73B	LCR55, CR50	DM7 / DM9	AM8, DM2
Carrying Cases									
VC3	Zippered Denier				X				
VC11	Vinyl					X			
VC20	Padded vinyl, zipper								X
VC30	Padded vinyl, zipper, belt loop			X			CR50	X	
VC221A	Padded vinyl, zipper, belt loop	X	X				LCR55		
DC205B	Deluxe case, shoulder strap	X	X						
DC207B	Deluxe case with clamp pocket	X	X						
Test Leads and Probe Tips									
RTL25	Replacement test leads, non-shrouded plugs								DM2
TL35A	Standard leads with alligator clips, 0.4 in. (.1 cm) jaw	X	X	X			X		
TL36	Standard leads with alligator clips, 0.4 in. (.1 cm) jaw	A	X	X			A		
TL244A	Heavy duty leads, silicone, 48 in. (121.9 cm) long, Ever Sharp™ tips	X	X	X			X		
TL245	Standard leads, shrouded 90° banana plugs		A	A			X		
TL246B	Silicone leads with large alligator clips	X	X	X			X		
TL73B	Replaceable ground test lead with alligator clip					X			
DL243C	Basic Test Lead Kit, silicone	X	X	X			X		
DL248C	Deluxe Test Lead Kit, silicone	X	X	X			X		
Other Accessories									
H-PM	Silicone Holster				X				
H-XP	Magne-Grip Holster, compact size			X					
H1-XR	Magne-Grip Holster, full size	30XR 38XR							
H2-XR	Magne-Grip Holster, full size	33XR 34XR 37XR							
TC253A	Temperature Converter	B	B	B					
XR-TA	Temperature Adapter	C							
38-SW	RS232 Cable and Software, DMM	D							
TM-SW	RS232 Cable and Software, HVAC	TMA10 / TMD90							

Accessories Cross-Reference Guide

Notes

A: Originally supplied with instrument
B: TC253A not required for HD110T, 35XP, 33XR, 34XR, 38XR
C: Models 35XP, 33XR, 34XR, 38XR, AC75
D: Model 38XR Only

Fuse chart

Model Noun	FP100	FP125	FP150	FP160	FP200	FP225	FP260	FP300	FP375	FP425	FP500	FP600
Current/Volt Ranging	10A/1000V	0.1A/250V	0.20A/250V	10A/600V	2A/1000V	0.5A/250V	2A/600V	0.315A/1000V	0.25A/500V	20A/600V	5A/1000V	15A/600V
Type of Fuse	Ceramic	Glass	Glass	Ceramic	Ceramic	Ceramic	Ceramic	Ceramic	Ceramic	Fiber	Ceramic	Fiber
Size (mm)	10 x 38	5 x 20	5 x 20	10 x 38	6 x 32	5 x 20	6 x 25	6 x 32	6 x 32	10 x 38	6 x 32	10 x 38
Interrupt Capacity (Amps)	30.000A	200A	200A	100.000A	30.000A	1.500A	3.000A	30.000A	10.000A	100.000A	30.000A	100.000A
30XR				X					X			
33XR/34XR	X							X				
37XR/38XR	X										X	
HD110/ HD110T/ HD110B/ HD115B		X (HD115B)					X					X
HD160B									X	X		
DM2/DM9						X						
15XP, 35XP					X							
5XP		X						X				
CR50/LCR55		X										
AM8/DM7			X									

Meterman

Quality and service beyond compare

Meterman test tools include a broad range of test and measurement instruments for use in the design, evaluation, installation, production, service and troubleshooting of electronic and electrical equipment and systems.

Our products

The products shown in this catalog include an extensive selection of portable multimeters, clamp meters, component checkers, bench-top meters, and specialty tools such as logic probes and short-finders to meet any application. Also shown is a complete selection of accessories including protective cases, test leads and adapters.

Our distributors

The products shown in this catalog are sold and supported by a worldwide network of Meterman distributors and dealers. Should you require any assistance or have questions about our products or their applications, these local dealers stand ready to serve you.

What's new!

Small Package
Big Performance

EPM3
Safe and simple go-no-go testing for phase sequence and motor rotation, see page 21

AC71
Easy, one button operation with this automatic clamp multimeter and bright backlight, see page 12

IR608
Solves temperature measurement problems, and small enough to fit in your pocket. See page 18.

Introducing the new PM 50 Series
Compact Multimeters designed for industrial

- Ultimate shirt-pocket size for portability
- AutoTect ™ feature directs the meter to automatically measure ac or dc volts or resistance
- VolTect™, a built-in ac volt detector
- Measures ac/dc microamp current
- Capacitance, frequency and continuity
- Large oversize display
- Full safety ratings of CAT III 300 V and UL

PM55
The world's smallest full-featured CAT III multimeter–portability at its best, see page 9

Digi-Glo, Probe Hold, Flex-Strap, Tech-Preferred, Magne-Grip and Voltect are registered trademarks, T-Shape meters, HD110B, HD115B US Pat. No. Des. 406, 540; Reg. Des. No. 2070504 and 2070505 in UK; No. 97 6644 in France; Canada (D) 85959 (1999); Germany Ind. Des. M97 10 607.0

Specifications subject to change without notice.

Meterman
The right tool everyday.™

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